

**Norms for the
General College Placement Program**

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Introduction

The General College Placement Program (GCPP) was developed during the 1979-1980 academic year, and after pilot testing in the spring of that year, was first used for all new students during fall 1980 (Brothen, Romano, Robertson, and Garfield, 1981).

The GCPP included tests in Reading, Writing and Mathematics, which were used to place new students into appropriate courses in those areas.

The scores of students who took these tests during the pilot testing of spring 1980 or as part of orientation during fall, 1980, were used to develop norms that were published in January 1981 (Brothen et al., 1981).

Because the norms reported were actually cumulative frequencies, and not percentile ranks, a new set of norms were calculated for students who took the placement test in fall, 1983. In addition, the 1980 data was used to calculate percentile ranks so that student norms could be compared from 1980 to 1983.

The norms that follow are percentile ranks derived from scores of more than 1500 students. The procedures used to calculate these percentile ranks are from Principles of Educational and Psychological Testing, (Brown, 1976). In addition, the means and standard deviations for each test are given for the 1983 students.

The descriptions of each test are the same as those used in the original report (Brothen et al., 1981).

Reading Test

The reading test consists of "eight brief passages, each followed by four or five questions measuring comprehension of ideas, ability to make inferences, and understanding of vocabulary in context: (ETS, 1977, p.3). The test has been normed on over 30,000 students in Community College, Vocational-Technical Colleges and other similar institutions from around the country (ETS, 1977). The raw scores (0-35 possible) and the percentile ranks for the national group and the 1519 GC students are listed in Table 1.

Table 1 Reading Test ($\bar{x}=21.97$, $s=7.28$)

<u>Score</u>	<u>National Percentile</u>	<u>GC Percentiles</u>		<u>Score</u>	<u>National Percentile</u>	<u>GC Percentiles</u>	
		<u>1983</u>	<u>1980</u>			<u>1983</u>	<u>1980</u>
35	99%	100%	100%	17	25%	26%	26%
34	96	98	98	16	22	23	22
33	92	96	96	15	19	20	19
32	88	92	94	14	16	17	16
31	84	90	90	13	13	14	13
30	79	86	86	12	10	12	11
29	75	82	82	11	8	8	8
28	70	77	78	10	6	6	7
27	66	75	76	9	4	4	5
26	61	67	69	8	3	3	4
25	57	61	64	7	2	2	3
24	52	56	59	6	1	1	2
23	48	50	54	5	1	1	1
22	44	45	49	4	1	1	1
21	40	41	44	3	1	1	1
20	36	37	40	2	1	1	0
19	32	33	34	1	1	1	0
18	28	29	30	0	0	0	0

Writing Test

The writing test consists of 40 "items dealing with sentence structure, the clear expression of ideas and their logical relationship" (ETS, 1977, p.3). This test was normed on the same group used to norm the reading test. The raw scores (0-40 possible) and the percentile ranks for the group and the 1519 GC students are listed in Table 2.

Table 2 - Writing Test (x=24.11, s=6.56)

<u>Score</u>	<u>National Percentile</u>	<u>GC Percentiles</u>		<u>Score</u>	<u>National Percentile</u>	<u>GC Percentiles</u>	
		<u>1983</u>	<u>1980</u>			<u>1983</u>	<u>1980</u>
40	99%	100%	100%	19	18%	23%	15%
39	99	100	100	18	15	19	12
38	99	100	99	17	12	19	9
37	97	99	99	16	9	14	7
36	95	98	99	15	7	11	6
35	92	97	97	14	5	5	4
34	89	96	95	13	4	4	3
33	85	92	90	12	3	3	3
32	81	88	87	11	2	2	2
31	76	84	82	10	1	1	2
30	72	79	79	9	1	1	1
29	67	74	73	8	1	0	1
28	61	69	67	7	1	0	1
27	56	64	60	6	1	0	1
26	51	58	54	5	1	0	0
25	45	52	47	4	1	0	0
24	40	47	41	3	1	0	0
23	35	42	35	2	1	0	0
22	30	37	29	1	1	0	0
21	26	32	24	0	0	0	0
20	22	27	19				

Mathematics Test: Whole Numbers Subset

The whole numbers subtest consists of seven items which require students to add, subtract, multiply, and divide whole numbers. The raw scores (0-7 possible) and percentile ranks for 1519 GC students, are listed in Table 3.

Table 3 - Whole Numbers Subtest ($\bar{x}=5.56$, $s=1.25$)

<u>Score</u>	<u>Percentiles</u>	
	<u>1983</u>	<u>1980</u>
7	87%	89%
6	58	62
5	30	36
4	13	17
3	4	7
2	1	2
1	0	1
0	0	0

Mathematics Test: Arithmetic Subset

The Arithmetic subtest consists of 25 items which require students to add, subtract, multiply, and divide whole numbers, fractions, decimals, and percents. The raw scores (0-25 possible) and the percentile ranks for 1519 GC students are listed in Table 4.

Table 4 - Arithmetic Subtest ($\bar{x}=16.19$, $s=4.89$)

<u>Score</u>	<u>Percentiles</u>		<u>Score</u>	<u>Percentiles</u>	
	<u>1983</u>	<u>1980</u>		<u>1983</u>	<u>1980</u>
25	99%	99%	12	20	27
24	97	97	11	16	22
23	93	95	10	12	17
22	87	91	9	9	13
21	81	86	8	6	9
20	74	80	7	4	6
19	68	74	6	3	4
18	61	67	5	1	2
17	54	60	4	1	1
16	47	53	3	0	1
15	39	47	2	0	0
14	32	40	1	0	0
13	26	33	0	0	0

Mathematics Test: Algebra Subtest

The Algebra subtest consists of 20 items which require students to solve both elementary and intermediate level algebra problems. The raw scores (0-20 possible) and the percentile ranks for 1519 GC students are listed in Table 5.

Table 5 - Algebra Subtest ($\bar{x}=9.96$, $s=4.78$)

<u>Score</u>	<u>Percentiles</u>	
	<u>1983</u>	<u>1980</u>
20	100%	100%
19	99	99
18	98	99
17	95	97
16	91	94
15	85	90
14	77	84
13	69	78
12	61	71
11	53	64
10	47	56
9	41	48
8	34	40
7	29	33
6	23	25
5	18	19
4	13	14
3	10	10
2	6	7
1	4	4
0	2	2

Conclusions

The percentile ranks of entering GC students on the GCPP have been used extensively since first reported in 1981. Their most frequent use has been in evaluation reports for special college retention programs, for the purpose of describing groups of students and for comparison with control groups as well as the entire GC student population. These norms have also been used by advisors when helping new students select appropriate courses.

The GC percentile ranks for reading and writing are also of interest as they allow a comparison of GC students with national norms. The consistently higher percentile ranks for GC students on these two tests indicate that GC students received generally lower scores on these tests than the national norm group.

The 1980 percentile ranks for reading and writing included in this report are very similar to the cumulative frequency percentages which were used as norms in the 1981 report. However, these two types of norms show more differences on the three math tests. The percentile ranks tend to be higher than the previously calculated cumulative relative frequencies, indicating student performance was generally lower on those tests than originally indicated.

The 1980 percentile ranks for new students in 1980 and 1983 compare very closely, indicating little change in students' basic skill preparation from 1980 to 1983. It will be useful to have GC percentile ranks calculated periodically so that changes in scores of entering students at different points in time may continue to be examined.

References

- Brown, Frederick, Principles of Educational and Psychological Testing. Holt, Rinehart and Winston, 1976.
- Brothen T., Romano, J., Robertson, D. and Garfield, J., Norms for the General Placement Program. General College Research Reports, University of Minnesota, 1981.
- Educational Testing Service, Using and interpreting scores on the CGP Self-Scoring Placement Tests in English and Mathematics. Princeton, N.J., 1977.